

- b) causing deposition of a second material into said pore of said template, wherein the deposition of at least one of said first material and said second material is electrochemical deposition; and
- c) releasing said segmented nanoparticle from said template to provide a freestanding segmented nanoparticle having a length from 10 nm to 50  $\mu$ m and a width from 5 nm to 50  $\mu$ m, wherein said freestanding segmented nanoparticle comprises 50 or fewer segments.

✓ 3. (amended) The method of claim 1 wherein said segmented nanoparticle has a length from 1-15  $\mu$ m and a width from 30 nm to 2  $\mu$ m.

✓ 4. (amended) The method of claim 1 wherein an electrode is placed on or in proximity to one surface of said template, and said template is placed in contact with a first plating solution to deposit said first material, and is placed in contact with a second plating solution to deposit said second material.

Please add the following new claims 37-54.

37. (new) The method of claim 1 wherein said segmented nanoparticle has a width of at least 500 nm.

38. (new) The method of claim 1 wherein said segmented nanoparticle has a width of at least 1  $\mu$ m.

39. (new) The method of claim 1 wherein said segmented nanoparticle has a width of at least 2  $\mu$ m.

40. (new) The method of claim 1 wherein at least one of said segments has a length of at least 10 nm.

41. (new) The method of claim 1 wherein at least one of said segments has a length of at least 50 nm.

13. (new) The method of claim 1 wherein said plurality of materials comprises at least 3 materials.

14. (new) The method of claim 1 wherein said plurality of materials comprises at least 4 materials.

15. (new) The method of claim 1 wherein said plurality of materials comprises at least 5 materials.

16. (new) A method for the manufacture of a freestanding segmented nanoparticle by the deposition of a plurality of materials inside a template, comprising:

- a) causing deposition of a first material into a pore of said template;
- b) causing deposition of a second material into said pore of said template, wherein the deposition of at least one of said first material and said second material is electrochemical deposition; and
- c) releasing said segmented nanoparticle from said template to provide a freestanding segmented nanoparticle having a length from 10 nm to 50  $\mu$ m and a width from 5 nm to 50  $\mu$ m, wherein at least one of said segments has a length of at least 10 nm.

17. (new) The method of claim 16 wherein said segmented nanoparticle has a length from 1-15  $\mu$ m and a width from 30 nm to 2  $\mu$ m.

18. (new) The method of claim 16 wherein said segmented nanoparticle has a width of at least 500 nm.

19. (new) The method of claim 16 wherein said segmented nanoparticle has a width of at least 1  $\mu$ m.

20 16  
49. (new) The method of claim 45 wherein said segmented nanoparticle has a width of at least 2  $\mu$ m.

21 16  
50. (new) The method of claim 45 wherein said freestanding segmented nanoparticle comprises about 50 or fewer segments.

22 16  
51. (new) The method of claim 45 wherein at least one of said segments has a length of at least 50 nm.

23 16  
52. (new) The method of claim 45 wherein said plurality of materials comprises at least 3 materials.

24 16  
53. (new) The method of claim 45 wherein said plurality of materials comprises at least 4 materials.

25 16  
54. (new) The method of claim 45 wherein said plurality of materials comprises at least 5 materials.

REMARKS

Applicant reserves the right to pursue any subject matter not contained in the currently proposed claims in a continuing or divisional application. Applicant believes that the pending claims are in condition for allowance. If it would be helpful to obtain favorable consideration of this case, the Examiner is encouraged to call and discuss this case with the undersigned.